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OBSERVATIONS ON THE COCCIDAE OF SOUTHERN RHODESIA.—IX [1]

By W. J. Hall, D.Sc.
(*Mazoe, Southern Rhodesia.*)

With Four Text-figures.

(Manuscript received 20th February, 1939.)
(Read 7th February, 1940.)

The present paper deals chiefly with representatives of the Margarodini and of certain tribes of the Monophlebinae. In the latter case it not infrequently happens that single specimens only are found, more particularly of the adult females, and that, when colonies are found, they consist of immature stages. Several species in addition to those recorded here have been found but until further specimens of the adult forms are found and, if possible, their immature stages, it has been thought unwise to deal with them.

It is particularly difficult to obtain satisfactory mounted preparations of the species of *Aspidoproctus* and this is doubtless the reason why the majority of the descriptions of the species of this genus rely chiefly on the characters of the unmounted specimens which, it is observed, may show considerable variation. Unfortunately the original descriptions of certain of the African species have not been available to me and in many cases I feel it would be dangerous to assign material to a species without having authentic material for comparison as well as the original description. For this reason the species most frequently collected by me is not dealt with here because it seems not improbable that it has already been described from this Continent.

I have to acknowledge once again my indebtedness to Dr. T. J. Naude, Chief Entomologist in the Department of Agriculture, Pretoria, for the loan of all available material and slides for examination, and to Mr. H. K. Munro, Collection Entomologist in the same Department, for the trouble he has gone to in this connection. I am also indebted to Dr. G. R. Bates of the Mazoe Citrus Experimental Station for the photograph reproduced as fig. 1, A.

Orthezia insignis Douglas.

Douglas, 1887, *J. Queckett micr. Club* (2) **3** : 169.
Brain, 1915, *Trans. Roy. Soc. S. Africa* **2** : 153.
Morrison, 1925, *J. agric. Res.* **30** : 123.

On *Coleus* sp. (Labiatae), Old Umtali, iv.1929 (*A. Cuthbertson*) ex coll. Dept. of Agric., Salisbury, No. 2357; on an unidentified plant at Umtali, xii.1931; on *Gardenia* sp. (Rubiaceae), Embeza, 10.xi.38.

Rhodesian specimens are typical of this cosmopolitan species. In the case of the *Gardenia* bushes recorded above the infestation was extremely severe.

[1] Eight parts of this series have already appeared as follows: 1928, *Bull. ent. Res.* **19** : 271–292; 1929, *Bull. ent. Res.* **20** : 345–358, 359–376; 1931, *Trans. ent. Soc. Lond.* **79** : 285–303; 1932, *Stylops* **1** : 185–195; 1935, *Stylops* **4** : 73–84, 217–226; 1937, *Trans. R. ent. Soc. Lond.* **86** : 119–134.

Icerya brachystegiae sp. n. (fig. 1).

Adult female large. Colour entirely obscured by an unusually heavy secretionary covering which, on account of the dust which becomes incorporated, appears a dirty white. The dorsum is covered with rounded masses of secretionary matter which have some general plan of arrangement. Mediodorsally there is an oval raised portion made up of rounded masses of which the arrangement is not clear. Surrounding this area is a double row of similar processes which in many places, particularly anteriorly, is sometimes three deep. Beyond this is a ring of masses of more oval shape which tend to be directed posteriorly; these are less conspicuous in the anterior half. Finally there is a marginal series of elongated rounded processes which posteriorly are three times as long as they are broad; these also are directed posteriorly and are less conspicuous in the anterior region.

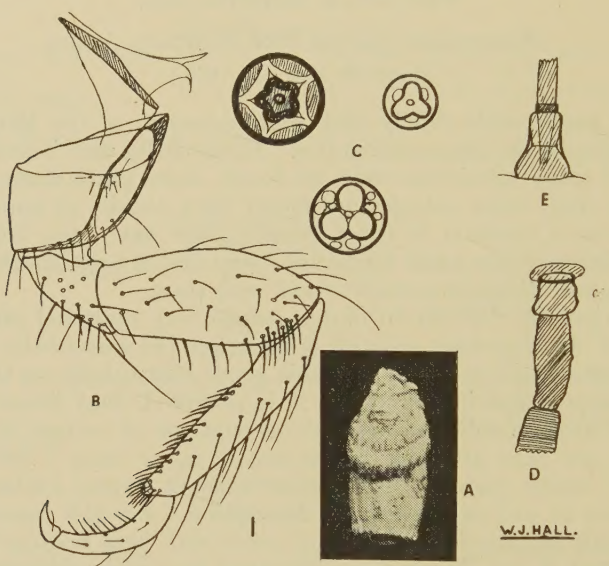

Fig. 1.—*Icerya brachystegiae* sp. n.: Adult ♀. A, adult ♀ with ovisac, natural size; B, hindlimb, × 45; C, various types of dermal pores, × 1140; D, abdominal spiracle, × 228; E, base of large marginal seta, × 456.

The ovisac is large, of approximately the same length and width as the insect itself, tapering gently, and very conspicuously truncated at its extremity. It is faintly but distinctly fluted longitudinally and very faintly striated transversely.

Length of the adult female, 10 mm.; breadth, 7–8 mm.

Eggs pink. Newly emerged larvae reddish-brown with dark brown antennae and legs.

Adult female with antennae of normal form and presumably of eleven segments; there is not a complete antenna in either of the two specimens but nine segments occur in two instances. Legs relatively short and stout, the femora in particular being much swollen; claw without a denticle and ungual digitules about three-quarters the length of the claw. Thoracic spiracles large, each with bar but without any disk-pores at the opening. Three pairs of abdominal spiracles present; these are much smaller than the thoracic spiracles, of simple tubular form with slightly enlarged atrium. Derm-pores very variable in size and structure, generally speaking of two sizes, the larger being 11 μ in diameter and the smaller 7·5 μ but forms of intermediate sizes occur. The smaller pores usually have trilocular centres. Ovisac-secreting band of pores clearly demarked, the pores being of the

smaller type with a marginal band of loculi and trilocular centres. Dermis with numerous fine setae of varying lengths mostly relatively short. Margin with long setae of varying lengths, the longest reaching 650 μ in length. Anal ring relatively large with a circular chitinous ring at its inner end; a large area surrounding the anal orifice with numerous long setae. Ventral cicatrices three in number, arranged in a transverse row; each cicatrix is elongated, longitudinally orientated, and with a distinct constriction in the middle.

Larva. Oval in outline with six segmented antennae; the terminal segment is nearly as long as the third, fourth and fifth together and the terminal and fifth segments bear several very long and slender setae some of which are twice as long as the entire length of the antenna. Legs well developed; claw with a minute denticle, ungual digitules extending beyond the apex of the claw, slender and minutely knobbed at their extremities. Thoracic and abdominal spiracles as in the adult but correspondingly smaller. Derm pores all of one type with a marginal band of loculi and usually a bilocular centre. Body setae on the abdomen, slender, set in a stout collar and arranged in four longitudinal series. Apex of the abdomen with three very long and slender setae on either side: these attain a length of twice that of the body. Lateral setae in groups of three or four, consisting of one very long seta, about three-quarters the length of the apical setae, and two or three very much shorter setae. Anal orifice with double band of polygonal wax pores at the inner end and a ring of disk pores near the opening. A single circular median ventral cicatrix present.

On *Brachystegia* sp. (Leguminosae), Mazoe, 9.x.27.

This large species with its conspicuously truncated ovisac seems quite distinct and is unlike any other species of the genus known to me.

Icerya purchasi Mask.

Maskell, 1878, *Trans. N.Z. Inst.* **11** : 221.
Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 171.
Green, 1922, *Coccidae of Ceylon* **5** : 436.

This species appears to be very common throughout the Colony on a large variety of garden plants, ornamental shrubs and trees, but so far it has not been collected on any veld tree or plant. Heavy localised colonies can be found on *Citrus*, more particularly between January and March but it is rarely serious enough to warrant the application of artificial control measures.

Steatococcus euphorbiae Brain.

Icerya euphorbiae Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 167.
Steatococcus euphorbiae Morrison, 1928, *U.S. Dept. Agric. Tech. Bull.* **52** : 214; 218.

On *Carissa edulis* var. *tomentosa* (Apocynaceae), Umtali, 2.xii.27; *Combretum* sp. (Combretaceae), Mazoe, 8.x.27; *Uapaca kirkiana* (Euphorbiaceae), Mazoe, 8.x.27 and *U. nitida*, Mazoe, 18.i.28; *Acacia* sp. (Leguminosae), Mazoe, 18.i.28; *Berlinia globiflora*, Banket, 22.ix.27; *Brachystegia* sp., Mazoe, 9.x.27 and Sinoia, 28.iii.28; *Ficus* sp. (Moraceae), Mazoe, 3.ii.29; *Grevillea robusta* (Proteaceae), Bulawayo, 20.x.28; *Protea abyssinica*, Inyazura, 16.iii.28. Also on "Barberton Daisy," Bindura, 15.viii.27 (*M. C. Mossop*), ex coll. Dept. of Agric., Salisbury, No. 4507 and on unidentified host-plants collected at Trelawney and the Victoria Falls.

This species was originally described by Brain and placed in the genus *Icerya*. Morrison (*loc. cit.*) has rightly pointed out that it has a definite internal marsupium and should therefore be assigned to the genus *Steatococcus*. Although it has been collected several times, and is obviously widely distributed, rarely more than a single specimen has been collected on any one

occasion. Rhodesian individuals are identical with authentic specimens from the Union of South Africa with which they have been compared.

Aspidoproctus armatus Newst.

Newstead, 1911, *Mitt. zool. Mus. Berlin* **5** : 160.
Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 177.
Vayssière, 1926, *Ann. Epiphyties* **12** : 281.

On *Erythrina tomentosa* (Leguminosae), Salisbury, 3.xi.27 and 22.xi.27; *Erythrina* sp., Plumtree, ii.1938 (*Mrs. A. H. Pattison*); *Protea angolenis* (Proteaceae), Mazoe, 21.viii.27; *Cassia* sp. (Leguminosae), Christmas Pass, Umtali, 20.iv.32.

The material collected at Plumtree was of particular interest as it contained several stages and during the month of March no less than fifty adult males were hatched out. The male of *armatus* agrees very closely with Morrison's description of the Aspidoproctine male drawn up from those of *maximus* Newst. and *mirabilis* Newst. (1928, *U.S. Dept. Agric. Tech. Bull.* **52** : 155) with one or two important exceptions. Morrison states that the anterior femur has a considerable number of bifurcate setae. In *armatus* it is the anterior tibia which carries the numerous bifurcate setae and there are only one or two such setae at most near the distal extremity on the inner face of the anterior femur. The claw is also minutely serrated on its inner edge. Morrison quotes a single pair of elongate fleshy caudal tassels but also states " lateral margins of some segments anterior to apical more or less protuberant and bearing clusters of long setae." In *armatus* the margin of the penultimate segment bears a protuberance that in some individuals is not more than a conspicuous protuberance but in others it is a distinct fleshy tassel sometimes reaching a length of half that of the apical tassels. The antepenultimate segment carries a very well-marked protuberance but on the segments anterior to this the protuberances are less and less conspicuous.

Aspidoproctus glaber Lind.

Lophococcus glaber Lindinger, 1912, *Jahrb. Hamburg. wiss. Anst.* **30** : 87.

On *Berlinia globiflora* (Leguminosae), roots, Dunphaile, 12.iv.32.

This species has only been found on one occasion in Southern Rhodesia, but what is believed to be the same species on *Acacia* sp. at Pretoria has been received from the Entomological Section of the Division of Plant Industry at Pretoria and on *Cassia florida* from Choma in Northern Rhodesia through the Department of Agriculture in Salisbury.

Rhodesian specimens appear to agree closely with Lindinger's description which, it may be remarked, was drawn up from material collected on *Cassia florida* at Amani, Tanganyika Territory.

Aspidoproctus maximus Newst.

Newstead, 1911, *Mitt. zool. Mus. Berlin* **5** : 158.
Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 178.
Vayssière, 1926, *Ann. Epiphyties* **12** : 291.
Morrison, 1928, *U.S. Dept. Agric. Tech. Bull.* **52** : 151.

On *Brachystegia* sp. (Leguminosae), Sinoia, 16.xii.27 and Salisbury, 17.ii.28 and on *Ceratonia siliqua* (Leguminosae), Salisbury, 18.i.38.

Rhodesian specimens appear to be typical of this exceptionally large species. It can generally be found on the *Brachystegia* trees in Salisbury if a search is made but so far no males have yet been collected by me.

Aspidoproctus pertinax Newst.

Newstead, 1900, *Proc. zool. Soc. Lond.* **1900** : 947.
Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 181.
Vayssière, 1926, *Ann. Epiphyties* **12** : 295.

" Found in Ants nests," Umniati River, 30.x.11, ex coll. Dept. of Agriculture, Salisbury.

This is apparently part of the original material identified as *pertinax* Newstead by Brain (*loc. cit.*). It has not so far been collected by me.

Aspidoproctus tricornis Newst.

Lophococcus mirabilis var. *tricornis* Newstead, 1912, *in* Schultze, *Zool. Ergeb. Forsch. Sudafrika* **5** : 16 (=*Denkschr. med. Ges. Jena* **16**).
Aspidoproctus tricornis Brain, 1915, *Trans. Roy. Soc. S. Africa* **5** : 182.

On *Acacia* sp. (Leguminosae), Mazoe, 1.xi.27 and 31.xii.31, Umtali, 2.xii.27 and 13.iii.28.

Rhodesian individuals agree very closely with Newstead's original description and with specimens from the collections of the Department of Agriculture for the Union of South Africa, with which they have been compared.

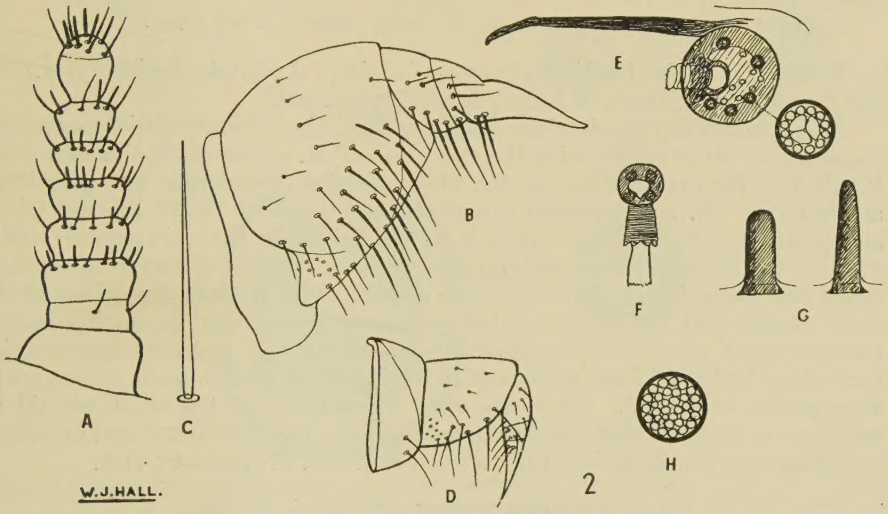

FIG. 2.—*Margarodes salisburiensis* sp. n.: Adult ♀. A, antenna, × 114; B, forelimb, × 67; C, seta from inner surface of forelimb; D, hindlimb, × 67; E, thoracic spiracle, × 228; F, abdominal spiracle, × 456; G, dermal spines, × 456; H, dermal pore, × 1140.

Margarodes salisburiensis sp. n. (fig. 2).

Adult female yellow with antennae consisting of eight relatively short stout segments which taper gradually from the basal to the terminal segment. The second segment is markedly shorter than the others and the terminal segment, which is the longest, is almost bulbous. All segments with the exception of the terminal segment broader than long. The apex of the terminal segment carries a group of fine setae and shorter but much stouter blunt spines; the remaining segments, with the exception of the first and second, carry a whorl of spines interspersed with setae. Anterior legs much enlarged; claw very well developed and heavily chitinised, with two pairs of digitules which do not extend beyond the apex of the claw. The division between the tarsus and claw can be discerned in most

individuals. Femur greatly swollen. Several long and stout setae are present on the inner surfaces of the tarsus, tibia and femur; these setae are narrowed towards their bases. Middle and hind limbs resemble the anterior pair but are very much smaller. Thoracic spiracles circular, with a long and conspicuous chitinous bar; a ring of some 5 or 6 disk-pores occurs within the atrium and associated with these are a few much smaller pores or setae: whether these are really pores or setae it is difficult to determine. Abdominal spiracles, of which seven pairs are present, much smaller than those of the thoracic region, tubular and with a ring of usually four disk-pores in the atrium. Derm-pores of the multilocular disk type, the central loculi not being noticeably larger than those of the marginal ring. Dermis with transverse bands of long stout setae, interspersed amongst these setae are some short stout spines; very few of these occur on the anterior abdominal segments but the number becomes progressively greater towards the posterior extremity. Marginally of each abdominal segment is a well-marked group of spines with setae interspersed; these groups are larger and more conspicuous on the anterior abdominal segments. Margin of thoracic segments with groups of setae but very few spines. The dermal setae are not narrowed towards the base as are those on the limbs. The spines on the posterior abdominal segments are most unusual, being very stout, tapering only very slightly with rounded or flatly rounded apices; on the anterior segments they taper rather more but they are always bluntly rounded at the tip.

Length of adult female (mounted), 2·5–3·5 mm.; breadth, 2·0–2·5 mm.

Found " in maize lands, ? at roots of maize," Avondale, Salisbury, x.1931 (*Le Fevre*), ex coll. Dept. of Agric., Salisbury, No. 2968.

This is unlike any species described from the Union of South Africa, authentic specimens of all of which, with the exception of *M. newsteadi* Brain, were very kindly lent for examination by Mr. Munro of the Department of Agriculture at Pretoria. *M. salisburiensis* comes close to *capensis* Giard, *trimeni* Giard and *peringueyi* Brain, from which it differs chiefly in the very characteristic shape of the dermal spines and their arrangement. It also differs from *capensis* Giard and *trimeni* Giard in being much smaller, from *ruber* in the colour of the adult female and the nature of the antennae, from *greeni* in having lateral thoracic spine areas, from *newsteadi* in having no disk pores on the anterior part of the body and from *peringueyi* in having the lateral thoracic spine groups very poorly developed. There are other differences but the above should be sufficient to separate this Rhodesian species from those recorded and described by Brain from South Africa (1915, *Trans. Roy. Soc. S. Africa* **5** : 119).

Neomargarodes hyparrheniae sp. n. (fig. 3).

Praeadult female squatly pear shaped. Dermis brown to black, usually lighter in colour in the vicinity of the pointed end, shiny but more or less uniformly covered with glassy crystalline plates. In some cases these plates give an appearance of polygonal reticulation but they have usually become flaked off to a greater or lesser degree. There are also some very short minute dead white processes resembling minute tubes which appear to occur in longitudinal series.

Antennae of the praeadult female reduced to flat cones carrying several minute setae (10–15). Mouth-parts relatively well developed. Legs entirely absent. Thoracic spiracles with a circle of disk-pores internally, for part of the circle the pores are two deep. No setae associated with the spiracles. Abdominal spiracles only slightly smaller than the thoracic spiracles and of exactly similar structure, with the exception of the posterior pair situated one on either side of the anal opening; these two posterior spiracles are very much smaller than those of the other seven pairs and have no circle of disk-pores internally. Anal opening of obscure structure, associated with two conspicuous pits having rims which are

highly chitinised on one side. These pits and the anal orifice are situated in an area which is circumscribed by a thin band of less heavily chitinised dermis. Round the outer edge of the area is a series of relatively long setae ranging from 45 μ to 70 μ long. Ventral cicatrices, circular, consisting of a very delicate and reticulated membrane covering an opening in the dermis which is surrounded by a highly chitinised ring. These cicatrices vary somewhat in size, the average diameter being slightly more than half that of the abdominal spiracles; they appear to occur in transverse series and are so arranged in these series that they also form rough longitudinal series. In number they vary from 25 to 35.

Length, 5–6 mm.; breadth, 4–4·5 mm.

Adult female excessively hairy and resembling a ball of fluff. Dermis creamy white, the hairs being brown; the body with much white mealy matter adhering which obscures

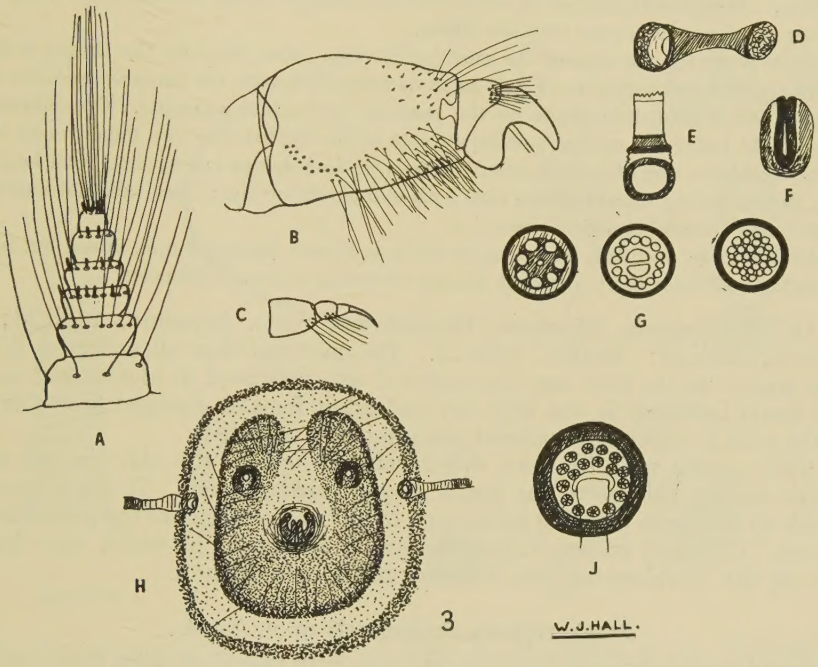

Fig. 3.—*Neomargarodes hyparrheniae* sp. n.: Adult ♀. A, antenna, × 57; B, forelimb, × 22·5; C, hindlimb, × 22·5; D, thoracic spiracle, × 57; E, abdominal spiracle, × 114; F, anal orifice, × 228; G, various types of dermal pore, × 912. Praeadult ♀. H, anal orifice and surrounding area, × 114; J, thoracic spiracle, × 228.

the colour of the hairs. Eyes red. The cyst fractures at the rounded end and the emergence of the adult female may be preceded by a mass of white cottony fibres; where the biggest mass was extruded it was found to contain colourless eggs. In many cases there was practically no evidence of white fibres.

The adult female, when mounted, broadly oval in outline with a delicate dermis. Antennae of six stout squat segments tapering rapidly from the basal to the apical segment. Terminal segment with a group of several very long and slender setae arising from its distal extremity, these setae are almost as long as the entire antenna and very slender; they are interspersed with a few short rounded spines. Third, fourth and fifth segments with a ring of long setae and short rounded spines. The second segment has a ring of long setae but the short spines are apparently wanting. Basal segment with a few long setae but these do not constitute a conspicuous ring such as is found in the other segments.

Anterior legs much enlarged; claw stout and with a very conspicuous heel. There appears to be a pair of digitules to the claw but they do not extend as far as the apex. Tarsus, small and triangular, with a tuft of setae near its distal extremity on the outer surface. Tibia and femur apparently fused with long setae arranged roughly in three series on the inner surface, a tuft of similar setae arises on the outer surface near the distal extremity. A series of small pores runs diagonally to the base from a point on the inner surface about one-third of its length from the base. Middle and hind legs very much smaller with a relatively long and slender claw and the inner surface of the tibia and femur with a few long setae. Mouth-parts wanting. Thoracic spiracles relatively small with a ring of multilocular disk-pores round the orifice; abdominal spiracles conspicuous, being about half the size of those of the thoracic region with apparently no disk-pores at the opening. There are eight pairs of abdominal spiracles, of which the last pair is somewhat smaller and less conspicuous than the others.

Derm pores circular and of the multilocular disk type, those on the thorax and the anterior abdominal segments as well as those associated with the thoracic spiracles tend to have fewer loculi than those on the posterior abdominal segments. Occasionally in some of the latter the central portion appears to be divided into two much larger loculi surrounded by a ring of smaller ones. Dermis without spines but covered with long and very slender setae. Anal opening oval with two chitinised lips; anal tube not chitinised or obvious. Ventral cicatrices absent.

Adult female, mounted, measuring as much as 10 mm. long by 6 mm. broad, but before mounting a globular hairy mass not usually exceeding 5 mm. in diameter.

On *Hyparrhenia filipendula* (Gramineae), roots, Inyazura, 10.iii.28; El Dorado, 29.iii.28; Banket, 24.iv.29. The material was all collected in the cyst stage; in the first case the material was preserved in alcohol but in the two latter instances it was kept dry and adult females emerged in September of the year in which the material was originally collected.

This species with its very well-developed heel to the claw in the adult female clearly belongs to the genus *Neomargarodes* Green. It has characters which do not agree with the description of any other species of the genus known to me. It is not unlike *N. festucae* Arch., specimens of which were kindly sent by Mr. Borkhsenius, but it is very much more hirsute.

Porphyrophora rhodesiensis sp. n. (fig. 4).

Second stage or praeadult female roughly oval, some individuals being drawn out to a rounded point at one end. Dermis flesh coloured and covered with a thin glassy film which is usually broken up into irregular-shaped masses.

Diameter, 2·5 mm.; breadth, 2·0 mm.

In microscopic preparations the outline is broadly oval with rudimentary antennae consisting of a slightly raised central portion carrying several short processes surrounded by a collar which is high on one side and falls away towards the other side and a similar collar enclosing the former with its high side corresponding to the low side of the inner collar. Mouth-parts well developed. Spiracles, large, opening apparently into a large broadly oval pit at the bottom of which is a conspicuous oval cribriform plate. Surrounding the spiracle are some 15 to 20 large multilocular pores arranged in a semicircle and opposite to these, in the vicinity of the opening of the oval pit, are a line of some 8 to 10 small pores. Structure of anal orifice not clear. Abdominal spiracles absent and the dermis devoid of pores, cicatrices or hairs.

First stage female similar to the second stage but with smaller antennae. The thoracic spiracles are only slightly smaller but of exactly the same type with fewer multilocular pores (6 to 10).

Adult female resembling a small hairy ball. When mounted for microscopic examination, the form is oval with an extremely delicate and hyaline dermis. Antennae short and squat, tapering gradually, and consisting of 12 to 16 very short segments; each segment has a chitinous ring of thickening which gives an annular appearance to the antenna. With the exception of the basal and terminal segments, all the segments are of the same size. The basal segment is possibly larger than the terminal but the tissues at the base are so delicate that it is difficult to determine its true extent. The terminal segment varies somewhat in length, it is usually very little longer than the penultimate segment but when the number of segments is less than 16 the terminal segment is longer and shows signs of incomplete division. Setae and spines are confined to the flattened apex of the terminal segment; the setae are very long and slender, being somewhat longer than the entire antenna; the spines are very short and have blunt rounded ends.

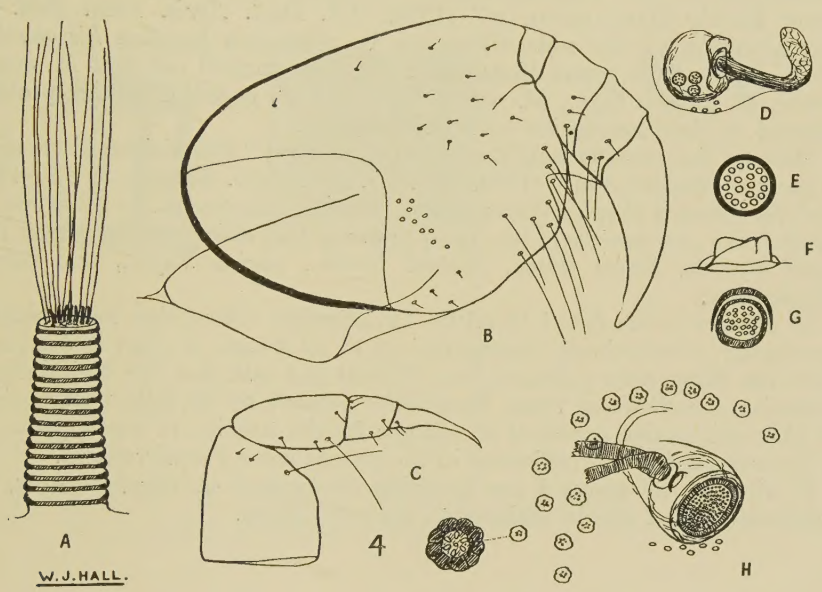

FIG. 4.—*Porphyrophora rhodesiensis* sp. n.: Adult ♀. A, antenna, × 114; B, forelimb, × 114; C, hindlimb, × 114; D, thoracic spiracle, × 114; E, dermal pore, × 890. Praeadult ♀. F, antenna, side view, × 228; G, antenna, view from above, × 228; H, thoracic spiracle and surrounding pores, × 114.

Anterior limbs large and stout with heavily chitinised claw. The articulation between the claw and tarsus is distinct and a fine suture marks that between the tarsus and tibia. The much swollen and enlarged femur is connected to the tibia by a free joint. Trochanter and coxa not clearly demarked. The tarsus bears two long and one or two short hairs on its inner surface and the tibia one long and one or two short hairs in a similar position. The femur has several long setae on the distal half of its inner surface and a few scattered minute setae. Towards the base there are a few minute pores.

Mid and hind limbs much smaller than the anterior pair. Claw heavily chitinised, long, slender and slightly curved; tarsus short and stout; tibia also stout but nearly twice as long as the tarsus; femur well developed and somewhat swollen; tibia and femur each with a long seta on its inner surface near the distal extremity. All joints with a very few minute setae.

Eyes conspicuous. Mouth-parts wanting. Thoracic spiracles relatively not very

large, opening into a circular to broadly oval pit carrying three multilocular disk pores at the base, and three or four much smaller pores in close proximity to the outer rim. Abdominal spiracles apparently wanting. Anal orifice inconspicuous and of uncertain form. Dermis with scattered multilocular disk pores and liberally covered with very long and very slender setae.

On *Hyparrhenia filipendula* (Gramineae), roots, Inkomo, 26.iii.28.

This species bears a very striking resemblance to *Margarodes hirsutissimus* Hall described from Egypt (1924, *Min. Agric. Egypt Tech. Bull.* **46**). It differs in being markedly smaller, having a much shorter terminal segment to the antenna, less hairy forelimbs and, in the second stage, in having much fewer multilocular disk-pores associated with the thoracic spiracles.

Morrison, in his " Classification of the Higher Groups and Genera of the Coccid Family MARGARODIDAE " (1928, *U.S. Dept. Agric. Tech. Bull.* **52**), drew attention to the wide divergence in characters between *hirsutissimus* and the type of the genus *Margarodes*. He also pointed out that *M. buxtoni* Newst., *M. gallicus* Sign., *M. perrisi* Sign. and *M. parieli* Vayssière probably belonged in close association with *hirsutissimus*.

Silvestri has recently published a paper entitled " Descrizione di tre specie Africane di Margarodini " (1938, *Boll. Ist. Ent. Univ. Bologna* **10** : 35–43) in which he restored *Porphyrophora* of Brandt with *polonicus* L. as genotype and included two new species of his own—*erythreae* and *libica*—*hirsutissimus* Hall, *hameli* Brandt, *indica* Green, *buxtoni* Newst., *parieli* Vayss., and *bolivari* Balachowsky.

In a letter to me dated 16.v.1938 Dr. Morrison stated that he has had an opportunity of examining representatives of all stages of what is considered to be true *Margarodes polonicus* from Poland and said that the desirability of separating *hirsutissimus* from *Margarodes* seemed to be fully substantiated but that such action appeared to call not for the erection of a new genus but for the resurrection and utilisation of the generic name *Porphyrophora*.

In view of the above I am assigning *rhodesiensis* to *Porphyrophora*, and *hirsutissimus* must also be assigned to the same genus.